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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/813,200	03/07/1997	MITSUHIRO HIRANO	2342-0107P	3165

2292 7590 04/10/2003

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EXAMINER

RAO, SHRINIVAS H

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

08/813,200

Applicant(s)

HIRANO, MITSUHIRO

Examiner

Steven H. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 10, 11, 16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 10, 11, 16 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

***Response to Amendment***

Applicants' amendment filed on January 16, 2003 has been entered on January 28, 2003.

Therefore claims 11 and 16 as amended by the amendment and claims 10 and 18 as previously recited are currently pending in the application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The previous rejection is reproduced below for ready reference. Please see the response to arguments section below.

Claims 10, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraiwa ( U.S Patent No. 5,273,423, herein after Shiraiwa) previously applied and Yanagawa et al. ( U.S. Patent No. 5,277,215, herein after Yanagawa) Saeki ( U.S. Patent No. 5,223,001, herein after Saeki) also cited by the applicants in their IDS of April 03, 2002, newly applied.

With respect to claims 10 and 11, Shiraiwa teaches a substrate processing chamber as previously stated.

Shiraiwa does not specifically mention the newly added limitation of the atmospheric pressure vent line being connected to the vacuum exhaust line.

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However, Yanagawa patent form the same field of endeavor, describes in figure 1 an atmospheric pressure vent line being connected to the vacuum exhaust line, to exhaust the chamber.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute Yangawa's atmospheric pressure vent line instead of Shiraiwa in Shiraiwa's apparatus to exhaust the chamber.

Claim 11 additionally recites vacuum exhaust line is to be connected to a vacuum pump. ( Yanagaw fgi.1, vacuum exhaust line connected to vacuum pump 8, col. 1 line 21-24).

Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraiwa ( U.S Patent No. 5,273,423, herein after Shiraiwa) previously applied and Yanagawa et al. ( U.S. Patent No. 5,277,215, herein after Yanagawa) and Terada ( U.S. Patent No. 5,324, 540, herein after Terada) also cited by the applicants in their IDS of April 03, 2002, both newly applied

With respect to claim 16, Shiraiwa teaches a substrate processing chamber as previously stated.

Shiraiwa and Yanagawa do not specifically mention the local exhaust being connected to a space covered by a cover for covering a dust generating portion of the moving mechanism.

However, Terada , a patent form the same field of endeavor, describes in Figure 1 36 or 38 , the local exhaust being connected to a space covered by a cover for covering a dust generating portion of the moving mechanism to locally exhaust the dust.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Terada's local exhaust pipe in place of Shiraiwa's local exhaust in the Apparatus taught by Shiraiwa and Yanagawa to locally exhaust the dust.

The limitation a second valve provided at a portion of said first vacuum exhaust line between said load lock chamber and a connection portion of said first and second vacuum exhaust lines ( Terada fig. 1 lines 36, 38 vales v2 or v3 or v6).

With respect to claim 18, in addition to the previous teachings, its new limitation , namely the chamber exhaust not being connected to the space ( i.e. the space covered by said cover ) ( See Terada chamber exhaust 331 with valve 35 not being connected to the space).

### ***Response to Arguments***

Applicant's arguments with respect to claims 10,11 and 18 have been considered but are not persuasive for the following reasons :

Applicants' first argument is that Shiraiwa does not disclose local exhaust because allegedly element 32 of Shiraiwa is not a local exhaust.

As explained during the interview of February 03, 2003 Shiraiwa discloses element 32 and element 32d , wherein 32 d is a local exhaust.

Applicants' repeat their previous contention that Shiraiwa does not teach a second vacuum exhaust line connected to substrate processing chamber and the first exhaust line is not persuasive because the previous rejection was based on the combined teachings of Shiraiwa , Yanagawa and Saeki and applicants' piece meal analysis of each applied reference instead of showing why the combined teachings of the applied references fails does not over come the outstanding rejection. See In re Keller , 208 USPQ 871 ( CCPA 1981). As previously stated the recitation, " the second vacuum exhaust line connected to substrate processing chamber " is shown in Shirawa figure2 , col. 5 lines 39-40. The second valve provided at a portion of the first vacuum exhaust line between the load lock chamber and a connection portion of the first and second vacuum exhaust line. ( Shiraiwa figure 2, col. 5 lines 10 -30 ) .

Applicants' argument that Shiraiwa's element 18 or 26 is not a cover for covering a dust generating portion of the moving mechanism is not persuasive because in addition to teachings stated in the previous Office Actions , it is well settled law that , " the recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations." Ex parte Mashma, 2 USPQ 1647 ( 1987).

Applicants' attempt to distinguish Terada based on other alleged structural differences is not persuasive because Applicants' are again attempting to distinguish

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applied references by piece meal analysis of individual references whereas the rejection is based on the combined teachings of the references.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

As the same references as previously applied are also used here this forms a separate basis for making this action Final.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (703) 306-5945. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 4:30 p.m.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.

Steven H. Rao

Patent Examiner

March 25, 2003.

  
LONG PHAM  
PRIMARY EXAMINER